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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,554	08/09/2007	Francois Moutel	1032326-000393	2258

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EXAMINER
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PHAN, THIEM D

ART UNIT	PAPER NUMBER
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3729

NOTIFICATION DATE	DELIVERY MODE
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12/22/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/577,554	<b>Applicant(s)</b> MOUTEL ET AL.	
	<b>Examiner</b> THIEM PHAN	<b>Art Unit</b> 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on 11/04/09 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1- 3 and 5-9, are rejected under 35 U.S.C. 103(a) as being unpatentable over Yen (US 6,744,634) in view of Tetaka et al (US 6,159,770).

**Regarding claim 1**, Yen teaches a process of making low height USB interface, comprising:

- forming a microcircuit (Fig. 11, 202) defining USB-format contact pads (111) and carrying an electronic component (202A) connected to the pads, and

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- in a single operation, adjusting the thickness of the microcircuit at least in the area (Fig. 8, 300A) of the contact pads, so as to have a thickness that conforms to the USB Standard (Col. 3, lines 56-60); which reads on applicants' claimed invention, except for having the microcircuit cut out from a tape having a plurality of microcircuits.

Tetaka et al teach a method of fabricating semiconductor devices with the microcircuit of semiconductor devices cut out or detaching with a sharp edge instrument (Fig. 99A, 2100 or Figs. 178, 179A, 179B, 182 & 183, items 412 & 463) from a tape (Fig. 54A, 133 or Fig. 57A, 135 or Fig. 98B, 234) having a plurality of microcircuits (110) in order to facilitate the handling and the automated assembling of theses microcircuits to a system (Col. 25, lines 20-24).

It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Yen by applying the microcircuits mounted on the tape, as taught by Yen and not its general structure, in order to facilitate the handling and the automated assembling of theses microcircuits to a system such as the USB Interface key.

**Regarding claim 2**, Yen teaches the disposing of a casing comprising at least one bottom half-shell (Fig. 6, 113) at least under the contact pads.

**Regarding claim 3**, Yen teaches the interfitting of the bottom half-shell (Fig. 6, 113) with a top half-shell (112) covering a zone of the microcircuit that lies outside the contact pads (111).

**Regarding claim 5**, Yen teaches the forming of an overmolded portion (Fig. 11, 114 & 113A) over the microcircuit (202).

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**Regarding claim 6**, Yen teaches the fastening of the microcircuit (Fig. 11, 202) to the bottom shell (113).

**Regarding claim 7**, Tetaka et al teach the insulative adhesive (Fig. 46, 115) to fix a chip (111) and it would be obvious to apply this adhesive to fix the microcircuit to the bottom shell while insulating it.

**Regarding claim 8**, Yen teaches that the electronic component (Fig. 11, 202A) is disposed at a location (113A) offset from a location of the contact pads (111).

**Regarding claim 9**, Tetaka et al teach that the electronic component (Fig. 116, 311) is disposed on the same top face of the microcircuit as the contact pads (315) and it would be obvious to apply this structure to Yen to accommodate further electronic component to the circuit.

**Regarding claim 15**, Yen teaches a process of making low height USB interface, comprising:

- forming a printed circuit (Fig. 11, 202) having microcircuits defining USB-format contact pads (111) and carrying an electronic component (202A) connected to the pads, and
- in a single operation, adjusting the thickness of a cut-out portion of printed circuit (202) having the microcircuit at least in the area (Fig. 8, 300A) of the contact pads, so as to have a thickness that conforms to the USB Standard (Col. 3, lines 56-60); which reads on applicants' claimed invention, except for having the printed circuit cut out from a tape having a plurality of microcircuits.

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Tetaka et al teach a method of fabricating semiconductor devices with the printed circuit having microcircuit of semiconductor devices cut out or detaching with a sharp edge instrument (Fig. 99A, 2100 or Figs. 178, 179A, 179B, 182 & 183, items 412 & 463) from a tape (Fig. 57A, 135 or Fig. 98B, 234) having a plurality of microcircuits (110) in order to facilitate the handling and the automated assembling of theses microcircuits to a system (Col. 25, lines 20-24).

It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Yen by applying the microcircuits mounted on the tape, as taught by Yen and not its general structure, in order to facilitate the handling and the automated assembling of theses microcircuits to a system such as the USB Interface key.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yen in view of Tetaka et al and further view of Lin et al (US 6,676,419).

**Regarding claim 4,** Yen in view of Tetaka et al teach a process of making USB interface with a microcircuit; which reads on applicants' claimed invention, except for inserting the microcircuit into a shell having an access (213) on a rear edge.

Lin et al teach a process of fabricating a portable storing device with USB interface by inserting the microcircuit (Fig. 3, 24) into a shell (21 & 22) having an access on a rear edge in order to have a stabilized structure of forward and backward position of the contact terminal (Col. 1, lines 42-47).

It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Yen in view of Tetaka et al by applying the design of forward or backward movement of contact terminal, as taught by Lin et al and not its general structure, in

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order to avoid the cost of the top switch (Fig. 8, 202C) and the unreliable contact cover (Fig. 14, 301) which tends to be lost and to permanently expose the contacts (Fig. 12, 111) and to have a stabilized structure of forward and backward position of the contact embedded in the circuit board (Fig. 12, 202).

### ***Response to Arguments***

5. Applicants' arguments filed on 11/04/09 have been fully considered but they are not persuasive for the following reasons:

Applicants recite that the prior art Tetaka et al do not the cutting out of the resin package from the tape (Remarks, pages 5 and 6). In response, Tetaka et al do teach many techniques of cutting out or detaching with a sharp edge instrument (Fig. 99A, 2100 or Figs. 178, 179A, 179B, 182 & 183, items 412 & 463) the resin package from the tape (Fig. 57A, 135 or Fig. 98B, 234) such as by laser radiation (Fig. 178), rotary cutter (Figs. 170A & 179B), break-away tool (Fig. 182) or push-up tool (Fig. 183). Although some of the embodiments have one of the type of tape as uncut carrier (Fig. 178, 463 & 473) while other has the tape (Fig. 57A, 135 or Fig. 98B, 234) to be cut to separate the resin package of microcircuits (Fig. 99C, 210). Therefore, Yen in view of Tetaka et al at a minimum teach the claimed invention.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Phan whose telephone number is 571-272-4568. The examiner can normally be reached on M & Tu, 6AM - 2PM, and W & Th, 9AM – 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Phan Thiem/  
Primary Examiner, Art Unit 3729

December 16, 2009